

Applicant(s): Olivier Guaume, et al.
Serial No.: 10/028,099
Filed: December 21, 2001
For: METHOD FOR OPTIMIZATION OF TEMPORAL PERFORMANCES WITH RAPID CONVERGENCE
Art Unit: 2825
Examiner: Thompson, Annette M.

FR000157

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Please replace the paragraph comprising lines 17-20 of page 3 with the following:

A1
--According to a particular embodiment of the invention, when a cell of a rank, rank \neq rank_i, identified must be replaced by a cell of a higher rank, rank \neq rank_k, the value of rank_k is equal to rank_i + rank_j, if the value of the propagation time computed for the said cell of rank \neq rank_i is within the predetermined threshold values val_j and val_{j+1} of the cells of consecutive ranks, rank_j and rank_{j+1}.--

Please replace the paragraph comprising lines 4-15 of page 5 with the following:

A2
--During a temporal analysis step TAS, a computation program computes accurately propagation times dt of signals, which pass through each cell of the network. To this end, said program is based on source file currently called SPEF "Standard Parasitic Extraction Format" comprising physical parameters such as capacitances or resistances. Said physical parameters come from a mask representing physically the circuit, said mask being conceived during a known step of place and route called "Back-End". The computation program extracts a final file at the standard format SDF "Standard Delay Format", said file comprising the propagation times computed. It can be noted that by computing accurately the propagation time dt for each cell, we avoid having an important margin of error on said time

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A2
at the end of the cells treatment and in particular during the replacement of some cells. Thus, it avoids to make making a big large number of iteration and consequently, it avoids to diverge diverging from the network we want to obtain.--

A3
Please replace the paragraph comprising lines 26 to 31 of page 6 with the following:

--On completion of the comparison step CMP, the rank, \rightarrow $rank_k$ of a cell C_k which is designed to replace the cell which is liable to be replaced C_i , with a rank, \rightarrow $rank_i$, is identified and defined as being equal to \rightarrow $i+j$ $rank_i + rank_j$, if the value of the computed propagation time dt_i for the cell which is liable to be replaced C_i is within the predetermined threshold values val_j and val_{j+1} of the cells of consecutive ranks, \rightarrow j $rank_j$ and \rightarrow $j+1$ $rank_{j+1}$, which can be written in the form $k=i+j$, if $val_j < dt_i < val_{j+1}$.--

A4
In the Abstract, please replace the paragraph comprising lines 1-11 of page 10 with the following:

--The present invention relates to a method for optimization of temporal performances of a network of electronic cells, comprising with a plurality of cells which that are taken from a library (LIB), comprising having several categories of cells, the cells of the same category all having the same functionality, and being arranged in increasing order of power. The method according to the invention comprises [[the following steps:

-]] the accurate computation of propagation times (dt) of signals which pass through each cell of the network[[;]] and

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[[

-]) the identification of cells which have a value of the propagation time computed propagation time value (dti) greater than a predetermined reference value (Ref).--